UDC: 004.8:338.48
DOI: 10.69899/limes-plus-en-24212-3235t
Original scientific work

PROGRESS OF ARTIFICIAL INTELLIGENCE: CHALLENGES AND OPPORTUNITIES IN E-TOURISM

***Žaklina Spalević*[1]**
Singidunum University, Belgrade
***Ivan Trifunović*[2]**
Tourist Organization of Vrnjačka Banja, Vrnjačka Banja
***Sanja Marković*[3]**
Academy of Vocational Studies of Kosovo and Metohija – Department Zvečan

Abstract: *In recent years, travel and tourism have undergone significant changes influenced by globalization, digitalization, sustainability, and the COVID-19 pandemic. These factors have shaped the industry in various ways, presenting both challenges and new opportunities. Globalization has facilitated the mobility of people, while digitalization has transformed how travel is planned and booked. Interest in travel continues to grow, especially due to the increasing availability of information online. All these factors together contribute to the significant growth of the travel and tourism market. The widespread use of computers, laptops, and smart devices has enabled a growing number of*

1 zspalevic@singidunum.ac.rs
2 ivantrifunovic75@gmail.com
3 sanja.markovic@akademijakm.edu.rs

people to use the Internet for various commercial purposes. Thanks to mobile applications that perform tasks previously requiring personal computers to complete via websites, people now possess greater technological knowledge. This technological advancement has eased access to various e-services. E-tourism, as a significant segment of electronic commerce, has seen a substantial increase in popularity worldwide. This paper explores how artificial intelligence impacts the tourism industry, offering new opportunities while simultaneously presenting challenges. We will show how this technological innovation is shaping tourism and examine the development of the artificial intelligence market, as well as the role of legal regulations in their application in tourism.

Keywords: *information and communication technologies, artificial intelligence, e-tourism, legal regulations.*

INTRODUCTION

The rapid development of information and communication technologies (ICT) has significantly altered the landscape of tourism in recent decades. The Internet, as a key platform for communication and information exchange worldwide, has transformed the way people travel. This evolution has created an interactive environment where travelers can customize their journeys according to their preferences. ICT and tourism are closely interconnected, and it is often difficult to distinguish where ICT drives or facilitates changes in the demand and supply of tourism services. While tourism generates increasing demands through the expansion of traveler needs and the growth of consumer demand, ICT provides tools that adapt to these needs, enabling development and increasing competition in the tourism sector (Ramos & Rodrigues, 2010, p. 1; Mavri & Angelis, 2009, p. 113; Frechtling, 2001, p. 154).

The widespread availability and use of computers, laptops, and other smart devices have increased the number of people using the Internet for various

commercial purposes (De, Pandey & Pal, 2020, p. 1). In today's market, it is essential to talk about the Internet as a distribution channel. This makes direct sales from suppliers to consumers more feasible than ever before (Goeldner & Ritchie, 2009).

People now possess greater technological knowledge, as mobile applications perform tasks that were previously carried out using personal computers (PC) via websites (Deng, 2013, p. 351). Digital transformation, facilitated by the abundance of available data, has dramatically changed all aspects of consumer habits – from searching and booking travel to expectations during the trip itself. These changes have forced tourist organizations and companies to adapt to the new demands and opportunities of the digital age to meet the needs of modern travelers and remain competitive in the market (Aikaterini & Kamenidou, 2021). This advancement has made access to various e-services simpler. The use of technology has had a significant impact on all activities and the transformation of business practices, especially in the tourism industry.

The tourism industry is highly susceptible to changes brought about by technological advancements, primarily due to its pronounced focus on service provision. Therefore, tourist organizations and companies are compelled to adapt to these changes and leverage the opportunities provided by the digital age to meet all the demands and needs of contemporary travelers. This includes investing in digital technologies, educating employees on new tools and practices, and continuously monitoring and adjusting strategies in line with changes in consumer needs and preferences.

PROGRESS OF ARTIFICIAL INTELLIGENCE

Artificial Intelligence (AI) is a branch of computer science focused on developing algorithms and methods that enable machines to possess human-like intellectual capabilities, including learning, reasoning, and understanding (Russell & Norvig, 2010).

The advent of AI brings a series of challenges, including issues of privacy, data protection, and ethical dilemmas arising from the use of AI (Gerke, Minssen & Cohen, 2020, p. 295). With technological advancement and growing awareness of data privacy, managing personal information becomes increasingly complex. Therefore, it is crucial for companies in the hospitality and tourism sector to actively monitor and adjust their practices to ensure that users have confidence in how their data is processed and used (Kuner, 2018). Managing this data is challenging as it requires balancing the use of data to provide a better user experience and respect user privacy. To ensure that users trust how their data is used, companies must actively follow changes in data privacy legislation and implement appropriate data protection measures.

Thus, the European Union's (EU) approach to AI is based on the idea that individuals and companies can benefit from AI, but in a safe manner with respect to precise rules. This approach aims to ensure the smooth functioning of the market and the public sector, as well as the protection of individuals' fundamental rights. Through this approach, individuals and companies could develop trust in AI, which would further enable its advancement. The path to creating a legal framework for AI in the EU has not been quick or easy (Prlja, Gasmi & Korać, 2021, p. 57).

Legal systems must adapt to the challenges posed by the increasing use of AI. To ensure a high level of reliability and safety in the functioning of AI systems, it is necessary to adopt new precise regulations. These regulations should define standards that both high-risk and lower-risk AI applications must meet. Since many issues related to the use of AI have not been regulated so far, it is necessary to establish regulations that will allow companies and individuals to use AI safely and provide legal mechanisms for addressing any negative consequences of using this technology (Prlja, Gasmi & Korać, 2021, p. 97).

The EU AI Act is a comprehensive legislative instrument that applies to all AI systems introduced to the EU market, used within the EU, or used by EU users. A key part of this law is a categorization system that assesses the potential risks AI technology may pose to the well-being, safety, or fundamental rights

of individuals. This framework encompasses four risk levels: minimal, high, unacceptable, and specific risk of lack of transparency (EU in Serbia, 2023).

Minimal risk: Most AI systems fall into the minimal risk category. Applications with minimal risk, such as recommendation systems or spam filters, will not have strict obligations or restrictions as they do not pose significant risks to the rights or safety of users. Companies can voluntarily adopt additional codes of conduct for these AI systems.

High risk: AI systems identified as high-risk must comply with strict requirements, including risk mitigation, high-quality data sets, maintaining detailed documentation, providing clear information to users, human oversight, and a high level of robustness, accuracy, and safety. Regulatory frameworks will facilitate responsible innovation and the development of compliant AI systems. Examples of high-risk systems include critical infrastructures, medical devices, systems for access to educational institutions, and law enforcement.

Unacceptable risk: AI systems that clearly endanger fundamental human rights will be prohibited. This includes manipulative systems or applications, as well as the use of biometric systems that violate privacy or enable discrimination.

Specific risk of lack of transparency: Users must be aware when they are interacting with AI systems such as chatbots. Fake content and other AI-generated content must be clearly labeled. Providers will need to ensure transparency regarding synthetic content (European Commission, 2023).

"AI for Europe" is a strategic document adopted by the European Commission in April 2018, noting that AI has become a part of everyday life, from using virtual assistants to organize the workday to traveling in autonomous vehicles and using smartphones that suggest activities like listening to music and choosing restaurants for lunch. In this document, AI is defined as a system that demonstrates intelligent behavior by analyzing its environment and taking actions to achieve specific goals with a certain degree of autonomy. These systems can be purely software-based, operating in a virtual environment (e.g., image, speech, and face recognition systems), or embedded in hardware devices such as robots, drones, and autonomous vehicles. In many European countries,

AI is already used in various sectors. For example, in Denmark, it is used in emergency services to diagnose based on the sound of the patient's voice, while in Austria, it assists radiologists in more accurately detecting tumors. It is also used on farms across Europe to monitor the temperature and food consumption of animals. Overall, AI, as stated in this document, has become a key technology of the 21st century, with an increasing impact on various aspects of our lives and businesses (European Commission, 2023).

In today's digital age, AI represents a key component of technological advancement and societal transformation. This technology encompasses a wide range of algorithms and methodologies that enable machines to perform tasks traditionally requiring human intelligence, such as learning, reasoning, and decision-making. Through various sectors and applications, AI is becoming an indispensable part of our daily lives.

One of the key aspects of the AI market's development is the role of technological giants like Google, Microsoft, Amazon, and Apple. These companies invest substantial resources in AI research and development, contributing to the rapid advancement of this field. On the other hand, there is an increasing number of specialized firms providing AI solutions tailored to the needs of various industries, further stimulating market growth. Data supporting this fact is illustrated in Figure 1.

According to an analysis by Next Move Strategy Consulting (Next Move Strategy Consulting, 2024), the AI market is expected to see significant growth in the coming decade. Currently valued at nearly $100 billion, it is projected to reach almost $2 trillion by 2030. This impressive growth is driven by the increasing integration of AI into various industries, such as supply chains, marketing, manufacturing, research, analytics, and many other areas.

Key trends contributing to this growth include the development of chatbots, generative AI, and mobile applications. Chatbots are becoming increasingly popular as a means of automating customer support and communication. Generative AI, which enables the creation of new content such as texts, images, and sounds, is also being increasingly used in various applications, from creating artwork to personalized content production.

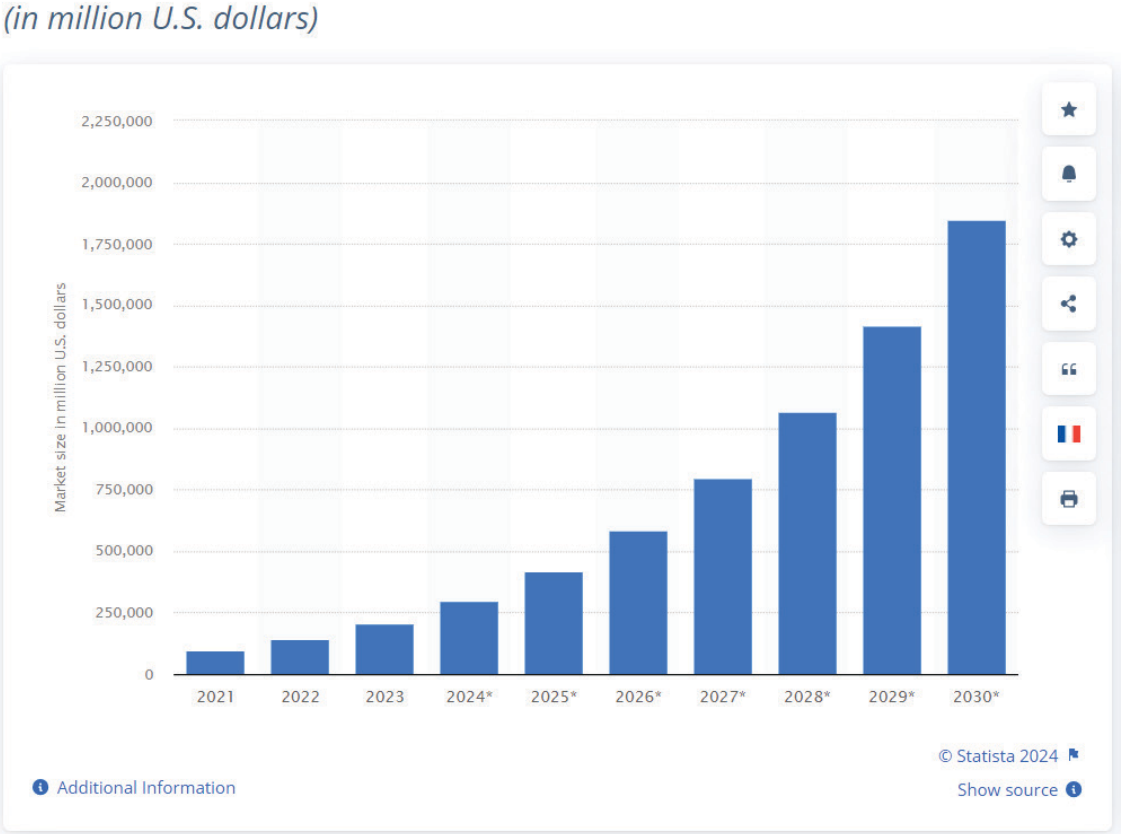

Figure 1: Global AI market size in 2021 with forecast to 2030 (Statista, 2023a)

The release of the ChatGPT 3.0 chatbot in 2022 marked a significant milestone for generative AI. This advanced platform allows for the creation of high-quality content on demand, opening up new possibilities in areas such as writing, design, and marketing. Interest in this field surged from 2022 to 2023, and this trend is expected to continue as ChatGPT and other tools are refined in the future, alongside the development of new generative AI programs.

With the continuous development of technology and the increasing implementation of AI in business processes, the AI market is expected to keep growing and expanding in the coming years. This will bring numerous opportunities and challenges for companies and organizations worldwide, as well as new ways to enhance efficiency and innovation in various sectors (Statista, 2023a).

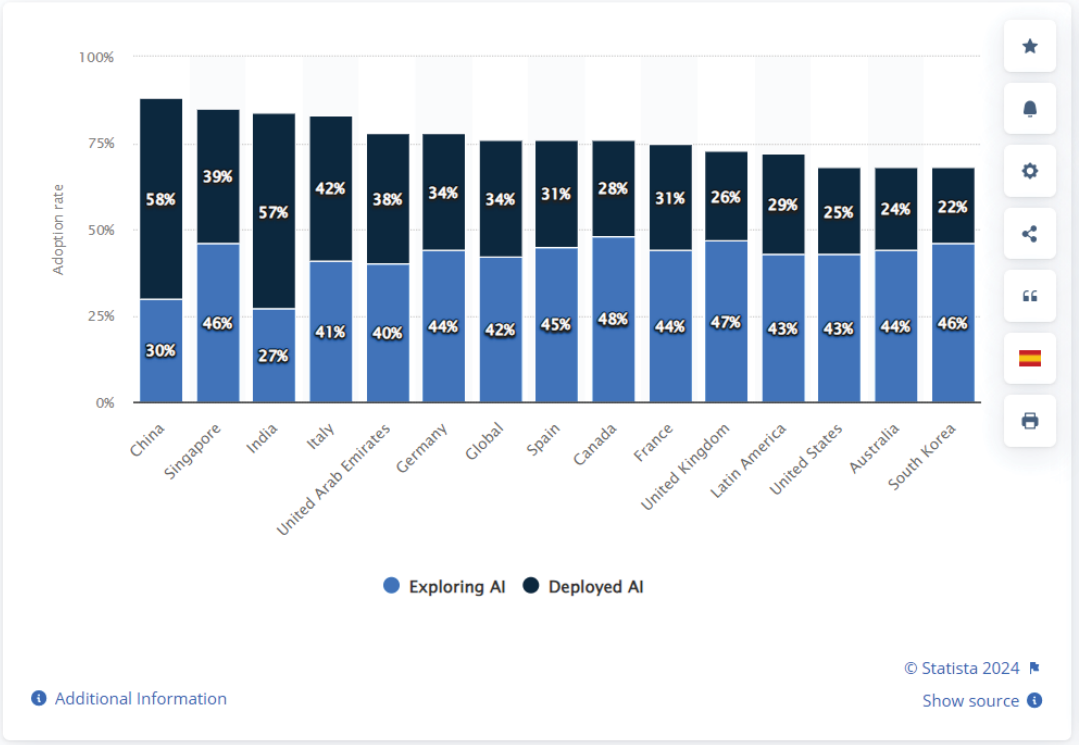

Figure 2: Global AI market size in 2021 with forecast to 2030 (Statista, 2023b)

According to the data in Figure 2, China was the global leader in AI research and application in 2022. This advantage was particularly evident in the implementation of AI technologies in organizations within China, where India ranked second. Both countries achieved an almost equal AI adoption rate of around 60%.

Focusing on research alone, the leading countries were Canada and the United States. These countries stood out for their high levels of activity in AI research and development, making them key players in the global AI landscape. Europe is also experiencing significant growth in the tech sector, especially in AI. Many leading European economies are at the forefront of AI research and application across various sectors. This highlights the growing importance of AI technologies in the global economy and shows that different regions of the world are increasingly committed to developing these technologies to enhance competitiveness and innovation.

In light of these trends and potential, the Republic of Serbia should continue to keep pace with the global development of AI by encouraging research, development, and application of this technology in various sectors. By the end of 2022, generative AI had become an important trend in AI development. Although this technology is not entirely new, as similar programs have been present over the past five years, the progress in this field has been remarkably impressive. Generative AI allows programs to create texts, images, music, and other content. The release of the ChatGPT-3 chatbot at the end of 2022 further spurred interest in this field, attracting the attention of companies such as Google, Microsoft, and Amazon. All these players are competing to develop the most advanced generative AI through various startup companies (Statista, 2024).

The company Oxford Insights, in collaboration with the International Development Research Centre (IDRC), has prepared the AI Readiness Index (Index), which is the only existing international indicator providing comparable measurements for a large number of countries worldwide. This composite Index means that the data forming the overall score is taken from other existing indices from previous years (some data dating back to 2016), as well as from publicly available data. Although the focus of the Index is on providing public services, the set indicators also reflect the maturity level of the private sector and society as a whole for AI-based technological solutions (Law on the Planning System of the Republic of Serbia, 2018).

According to the 2019 report, the Republic of Serbia was ranked 58th out of 194 countries, and in 2023 it was ranked 57th out of 193 countries. The Index

measures 11 indicators grouped into four areas: governance, infrastructure and data, skills and education, and public administration and services.

Table 1. Regional overview of AI readiness according to the Index

Country	Global ranking for 2019	Global ranking for 2023
Slovenia	38	39
Bulgaria	47	51
Hungary	48	45
Romania	55	64
Republic of Serbia	58	57
North Macedonia	61	83
Croatia	62	70
Montenegro	67	78
Albania	83	89
Bosnia and Herzegovina	95	117

From Table 1, we can see that from 2019 to 2023, the Republic of Serbia maintained a relatively stable position in the AI readiness ranking, with a slight improvement from 58th to 57th place. This data suggests a continuous effort by the state in this area but also highlights the challenges accompanying AI development in a global context. During the same period, other countries in the region experienced various changes in their positions. For instance, Slovenia, as the best-ranked country, also maintained a stable position with a slight decrease from 38th to 39th place. Hungary showed improvements, moving from 48th to 45th place, while North Macedonia, Croatia, Montenegro, and Bosnia and Herzegovina experienced significant drops in ranking. This trend reflects the dynamic nature of AI development in the region. Factors such as infrastructure, education, and governance play key roles in shaping a country's readiness for AI integration into its society and economy. For example, a well-trained workforce and clear regulatory frameworks can facilitate the adoption and implementation

of AI. Additionally, investments in research and development, as well as cooperation between the public and private sectors, can foster innovation and enhance a country's competitiveness in this field.

The development of AI is an important factor in economic and social transformation. The Republic of Serbia, along with other countries in the region, faces the challenges and opportunities this process brings. Serbia's stable position in the AI readiness ranking indicates continuous efforts in this area but also reminds us of the need for further improvements in infrastructure, education, and regulatory frameworks to leverage all the advantages AI can bring.

The Republic of Serbia will invest 100 million euros in AI development over the next two years, supported by a new AI Development Strategy until 2030, along with an accompanying Action Plan. Serbia already adopted an AI Development Strategy in 2019, becoming the first country in Southeast Europe to have such a document. Serbia joined the Global Partnership on AI in 2022 and became a member of the World Economic Forum's AI Governance Alliance in 2023. According to the AI Readiness Index for 2023, Serbia ranks 57th out of 193 ranked countries, as a leader in the region (Naled, 2024).

The tourism sector is regulated by the Law on Tourism, the Law on Hospitality, and the Tourism Development Strategy for the period 2016–2025. Additionally, on July 23, 2023, the Government of Serbia adopted Ethical Guidelines for the Development, Application, and Use of Trustworthy and Responsible AI. These guidelines aim to ensure that science, particularly in the field of AI, develops and progresses without endangering or neglecting the human being, as the central figure of all processes that affect them and in which they are an indirect or direct participant. Furthermore, AI systems being developed must align with the well-being of humans, animals, and the environment.

To ensure the gradual alignment of the legislative framework with the legal acquis of the European Union, as well as the creation of a legal framework within the Republic of Serbia for the development and application of ethically aligned AI systems, the Government, through a Conclusion, adopts the document of Guidelines, recommending their application by all state bodies and organizations,

bodies and organizations of provincial autonomy, bodies and organizations of local self-government units, institutions, public enterprises, special bodies through which regulatory functions are performed, and legal and natural persons entrusted with public powers, when establishing and using AI systems in their work. It is also recommended that other legal and natural persons developing and/or using AI systems apply these Guidelines (Conclusion on the Adoption of Ethical Guidelines for the Development, Application, and Use of Trustworthy and Responsible Artificial Intelligence, 2023). Additionally, in the Republic of Serbia, the tourism sector is regulated by the Law on Tourism, the Law on Hospitality, and the Tourism Development Strategy for the period from 2020 to 2025.

ARTIFICIAL INTELLIGENCE IN ENHANCING TOURISM

The development of AI is having an increasingly significant impact on various sectors, including the tourism industry. Developed countries have highlighted tourism as a key priority to attract investments, increase revenues, create new employment opportunities, and encourage economic diversification (Alnafjan, Aldayel, and Kharrat, 2023, p. 1). An analysis of the available literature suggests that tourism has both direct and indirect impacts on a country's economy, primarily on its gross domestic product (GDP) and national income. The direct impact is reflected in the support of certain material production sectors that serve the tourism industry, while the indirect impact involves the transfer of income from other countries into the domestic economy (Trifunović, Spalević, Marković, and Savić, 2023).

By leveraging AI algorithms and machine learning techniques, organizations can achieve more accurate predictions and forecasts, enabling them to anticipate future trends, demand patterns, and market fluctuations. This facilitates informed decision-making and strategic planning, providing the ability to foresee future business conditions and revenues, as well as identify current and potential user/tourist demand trends (Doborjeh, Hemmington, Doborjeh, and Kasabov, 2022).

In the context of the tourism industry, machine learning algorithms can analyze vast amounts of data, including user preferences and behavior, to provide personalized recommendations for travel routes, accommodations, and activities. Additionally, AI can optimize operational efficiency by analyzing historical data on booking patterns, occupancy rates, and pricing trends. This enables revenue management and more efficient back-end operations, such as inventory management and supply chain logistics (Madurga and Mendez, 2023).

Therefore, AI technologies are transforming how travelers plan, book, and experience their trips, while simultaneously offering opportunities for the tourism industry to enhance its services and experiences. Analyzing the works of numerous authors addressing this issue, we will present several key aspects of the relationship between AI and the tourism industry, highlighting examples of AI technology application in practice.

Personalized travel experience: AI can be used to analyze traveler preference data to create personalized travel experiences. For instance, AI can recommend destinations, accommodations, activities, and restaurants based on the search history and past travels of the traveler.

Chatbot support: Tourism agencies and companies can use AI-powered chatbots to provide 24/7 support to travelers. Chatbots can answer questions about destinations, bookings, weather conditions, and other relevant information.

Travel data analysis: AI can analyze large volumes of travel data to identify trends, traveler preferences, and potential business improvement opportunities. For example, AI can identify popular destinations, travel seasons, or preferences for specific types of activities.

Predictive maintenance and resource management: In tourist destinations, AI can be used for predictive maintenance of infrastructure and resource management such as water, energy, and waste. This way, AI can help reduce costs and improve the efficiency and sustainability of destinations.

Marketing and personalized offers: Tourism agencies can employ AI to target specific groups of travelers and tailor marketing campaigns to their interests and preferences. For example, AI can analyze traveler data to create

personalized offers and promotions for specific market segments. AI enables tourism companies to customize marketing messages to users based on their preferences and past behavior. For example, AI algorithms can analyze user data to identify individuals likely interested in specific travel packages or destinations, and then send them personalized marketing messages (Giotis and Papadionysiou, 2022).

CONCLUSION

The fusion of ICT and AI in the tourism industry brings fundamental transformations in the process of planning, booking, and experiencing travel. This evolution allows personalized experiences for travelers, improves operational efficiency of enterprises, and opens doors for innovation. However, with technological advancement come challenges such as privacy issues, data protection, and ethical dilemmas arising from the use of AI. Therefore, it is essential to adopt precise regulations that ensure safe and responsible use of AI in tourism, while supporting innovation and protecting fundamental rights of individuals. Through a responsible approach and collaboration among industry, regulators, and academic communities, the full potential of technological advancement in the tourism industry can be realized, creating a sustainable and competitive global tourism scene.

Furthermore, the development of the AI market represents a global trend that is accelerating, with significant expected growth in the next decade. In this context, tech giants such as Google, Microsoft, Amazon, and Apple play a crucial role, investing substantial resources in the research and development of AI technologies. Additionally, an increasing number of specialized firms are providing AI solutions tailored to the needs of various industries, further stimulating market development. Key trends such as the development of chatbots, generative AI, and mobile applications are driving growth in this field. As the global AI market expands, countries like the Republic of Serbia are striving to keep pace with this trend and improve their readiness to integrate AI into society and the economy. The stable position of the Republic of Serbia in the readiness

ranking for AI indicates the efforts the country is making in this regard, while also emphasizing the need for further improvement in infrastructure, education, and regulatory framework to fully capitalize on the benefits that AI can bring.

REFERENCES

1. Aikaterini, S., & Kamenidou, I. (2021). „Complying with Digital Transformation in Online Booking through Experiential Values of Generation Z.“ European Journal of Tourism Research, 30(3003), 1–16.
2. Alnafjan, A., Aldayel, M., & Kharrat, A. (2023). „Systematic Review and Future Direction of Neuro-Tourism Research.“ Brain Sciences, 13(4), 682.
3. De, R., Pandey, N., & Pal, A. (2020). „Impact of digital surge during Covid-19 pandemic: A viewpoint on research and practice.“ International Journal of Information Management, 55, 1–5.
4. Deng, Z. (2013). „Understanding public users' adoption of mobile health service.“ International Journal of Mobile Communications, 11(4), 351–373.
5. Doborjeh, Z., Hemmington, N., Doborjeh, M., & Kasabov, N.K. (2022). „Artificial Intelligence: A systematic review of methods and applications in hospitality and tourism.“ International Journal of Contemporary Hospitality Management, 34, 1154–1176.
6. EU u Srbiji. (2023). Godišnji izveštaj o Srbiji 2023. Retrieved from https://europa.rs/godisnji-izvestaj-o-srbiji/
7. European Commission. (2018). Artificial Intelligence for Europe. Retrieved from https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52018DC0237
8. European Commission. (2023). Commission welcomes political agreement on Artificial Intelligence Act. Retrieved from https://ec.europa.eu/commission/presscorner/detail/en/ip_23_6473
9. Frechtling, D.C. (2001). Forecasting Tourism Demand – Methods and Strategies. Oxford: Linacre House.

10. Gerke, S., Minssen, T., & Cohen, G. (2020). „Ethical and Legal Challenges of Artificial Intelligence-Driven Healthcare.“ In Artificial Intelligence in Healthcare, 295–336.
11. Giotis, G., & Papadionysiou, E. (2022). „The Role of Managerial and Technological Innovations in the Tourism Industry: A Review of the Empirical Literature.“ Sustainability, 14(9), 5182.
12. Goeldner, R., & Ritchie, J. (2009). Tourism: Principles, Practices, Philosophies. New Jersey: John Wiley and Sons.
13. Kuner, C. (2018). „International Agreements, Data Protection, and EU Fundamental Rights on the International Stage: Opinion 1/ (EU-Canada PNR) of the Court of Justice of the EU.“ Common Market Law Review, 55(3), 857–882.
14. Madurga, M. A. G., & Mendez, A. J. G. (2023). „Artificial Intelligence in the Tourism Industry: An Overview of Reviews.“ Administrative Sciences, 13(8), 1–22.
15. Mavri, M., & Angelis, V. (2009). „Forecasting the Growth of e-Tourism Sector: The Case Study of Mediterranean countries.“ Tourismos: An International Multidisciplinary Journal of Tourism, 4(3), 113–125.
16. Naled. (2024). Srbija u razvoj veštačke inteligencije ulaže 100 miliona evra do 2026. Retrieved from https://naled.rs/vest-srbija-u-razvoj-vestacke-inteligencije-ulaze-100-miliona-evra-do-2026-8731
17. Next Move Strategy Consulting. (2024). Retrieved from https://www.nextmsc.com/aboutus
18. Prlja, D., Gasmi, G., & Korać, V. (2021). Veštačka inteligencija u pravnom sistemu EU. Monografija 177. Beograd: Institut za uporedno pravo.
19. Ramos, C., & Rodrigues, P. (2010). „The importance of online tourism demand.“ 10th International Forum on Tourism Statistics, Session 1: Statistical coverage of new trends in tourism, 1–20.
20. Russell, S.J., & Norvig, P. (2010). Artificial Intelligence: A Modern Approach (3rd ed.). Upper Saddle River: Prentice Hall.

21. Statista. (2023). Artificial intelligence (AI) market size worldwide in 2021 with a forecast until 2030. Retrieved from https://www.statista.com/statistics/1365145/artificial-intelligence-market-size/
22. Statista. (2023b). Adoption rate in business of AI worldwide and selected countries 2022. Retrieved from https://www.statista.com/statistics/1378695/ai-adoption-rate-selected-countries/
23. Statista. (2024). Artificial intelligence (AI) worldwide – statistics & facts. Retrieved from https://www.statista.com/statistics/1378695/ai-adoption-rate-selected-countries/
24. Trifunović, I., Spalević, Ž., Marković, F., & Savić, S. (2023). „Sinergija University Scientific Conference with International Participation.“ 35–40.
25. Zaključak o usvajanju etičkih smernica za razvoj, primenu i upotrebu pouzdane i odgovorne veštačke inteligencije („Sl. glasnik RS“, br. 23/2023). Nacionalna platforma za veštačku inteligenciju. Etičke smernice za razvoj, primenu i upotrebu pouzdane i odgovorne veštačke inteligencije. Retrieved from http://demo.paragraf.rs/demo/combined/Old/t/t2023_03/SG_023_2023_007.htm
26. Zakon o planskom sistemu Republike Srbije („Sl. glasnik RS“, br. 30/18). Strategija razvoja veštačke inteligencije u Republici Srbiji za period 2020–2025. godine. Retrieved from https://www.srbija.gov.rs/extfile/sr/437304/strategija_razvoja_vestacke_inteligencije261219_2_cyr.pdf